HARVEST ANALYSIS RESULTS

Various harvest levels designed to adjust the current standing volume toward the desired standing volume over time were analyzed. The analyses held harvest levels fixed throughout the analysis period with the exception of the optimize PNV harvest level run.

Annual harvest levels were calculated for a one hundred year period to show sustainability. However, it is difficult to make accurate predictions one hundred years into the future. Basing predictions on information derived from both actual CFI measurements and harvest scheduling software improves those predictions. However, market conditions, natural events, and changing social and political values still restrict the degree of confidence one can place on the prediction. We have a high level of confidence in the predictions for the near future.

Southwestern Idaho Supervisory Area

The current standing volume is 62 MMBF higher than the desired standing volume if all stands are regenerated naturally. If some of the medium sites are regenerated by planting and the remaining medium along with the high and low sites left to regenerate naturally, the current standing volume is 68 MMBF above the desired standing volume.

A total of five harvest scheduling scenarios were analyzed.

- Optimize PNV (maximize PNV).
- No planting or precommercial thinning.
- All acres available for planting and precommercial thinning.
- No planting but precommercially thin up to 300 acres per year.
- Plant up to 30 acres per year and precommercially thin up to 300 acres per year.

Their impact on the objective of achieving the desired standing volume is depicted in Figures 2, 3, 4, 5, and 6. The harvest scheduling model maximized the PNV for each of the scenarios.

Figure 2 depicts the optimization harvest scenario. The model opted to harvest most

of the timber in the first decade. This scenario does not allow a sustained even flow of timber over the ten decades. The desired standing volume falls below the Nat-DSV level during the first decade and never regains the volume to obtain the Nat-DSV level.
Figure 3 depicts the no plant or precommercial thin harvest level (9 and 10 MMBF). Both the 9 and 10 MMBF harvest levels maintained a standing volume above the Nat-DSV for the entire ten decades.

Figure 4 depicts all acres available for planting and precommercial thinning for harvest levels of 9, 10, 11, and 12 MMBF. During any harvest alternative, the model could clearcut and plant and/or precommercially thin as many acres as deemed necessary to maximize NPV. All four harvest levels maintained a standing volume above the Nat-DSV level for the entire ten decades.

Figure 5 depicts the planting of up to 30 acres and precommercially thinning of up to 300 acres per year scenario (9, 10, and 11 MMBF). All three harvest levels maintained a standing volume about the Nat-DSV for the entire ten decades.

Figure 6 depicts the no plant but precommercially thinning up to 300 acres per year for harvest levels of 9, 10, and 11 MMBF. As with all the above scenerios, the standing volume at the end of each decade remained above the desired standing volume.

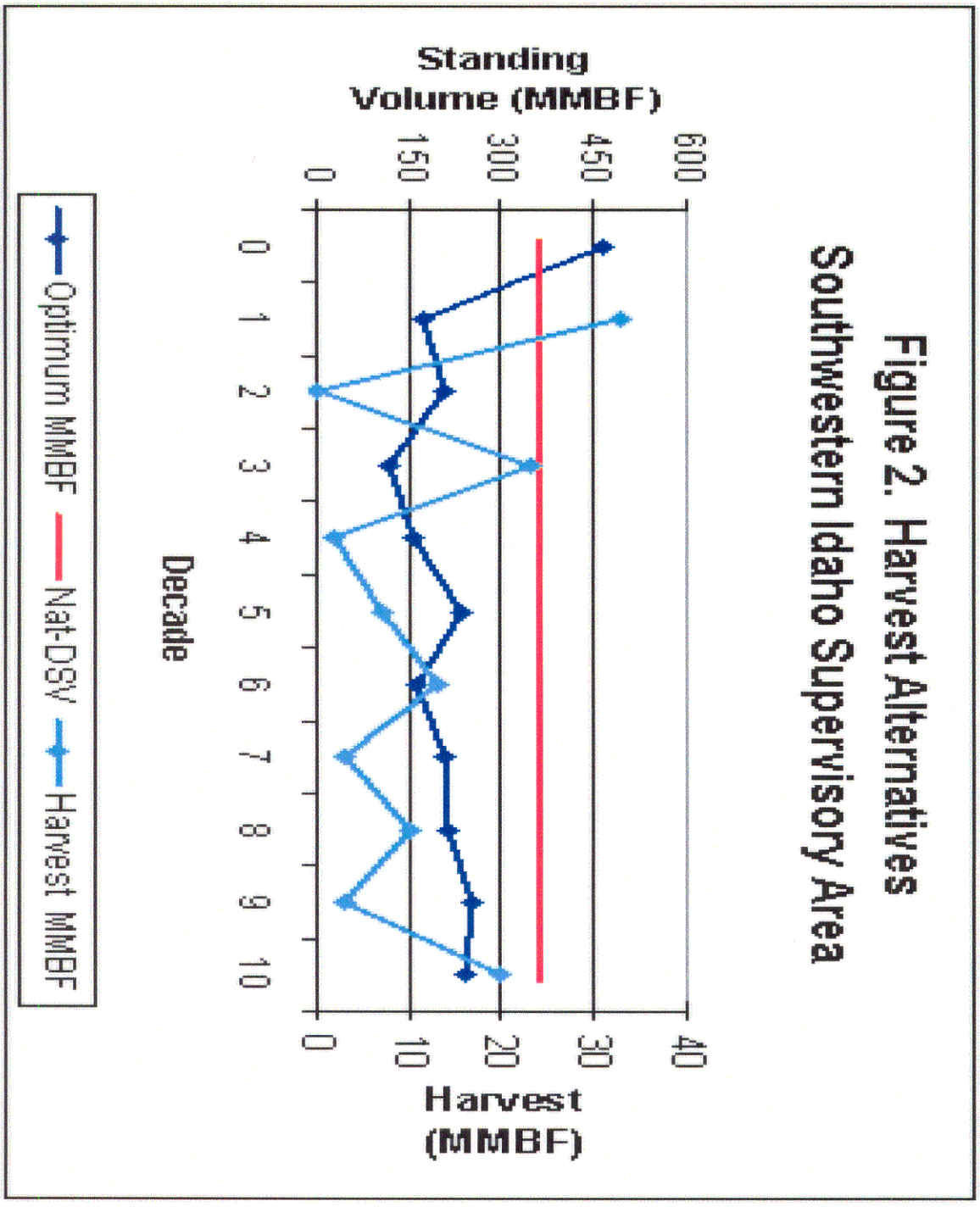
Figure 2. Harvest Alternatives
Southwestern Idaho Supervisory Area
Standing Volume (MMBF)
0
150
300
450
600
Harvest (MMBF)
0
10
20
30
40
Decade
0 1 2 3 4 5 6 7 8 9 10
Optimum MMBF
Nat-Dsy
Harvest MMBF

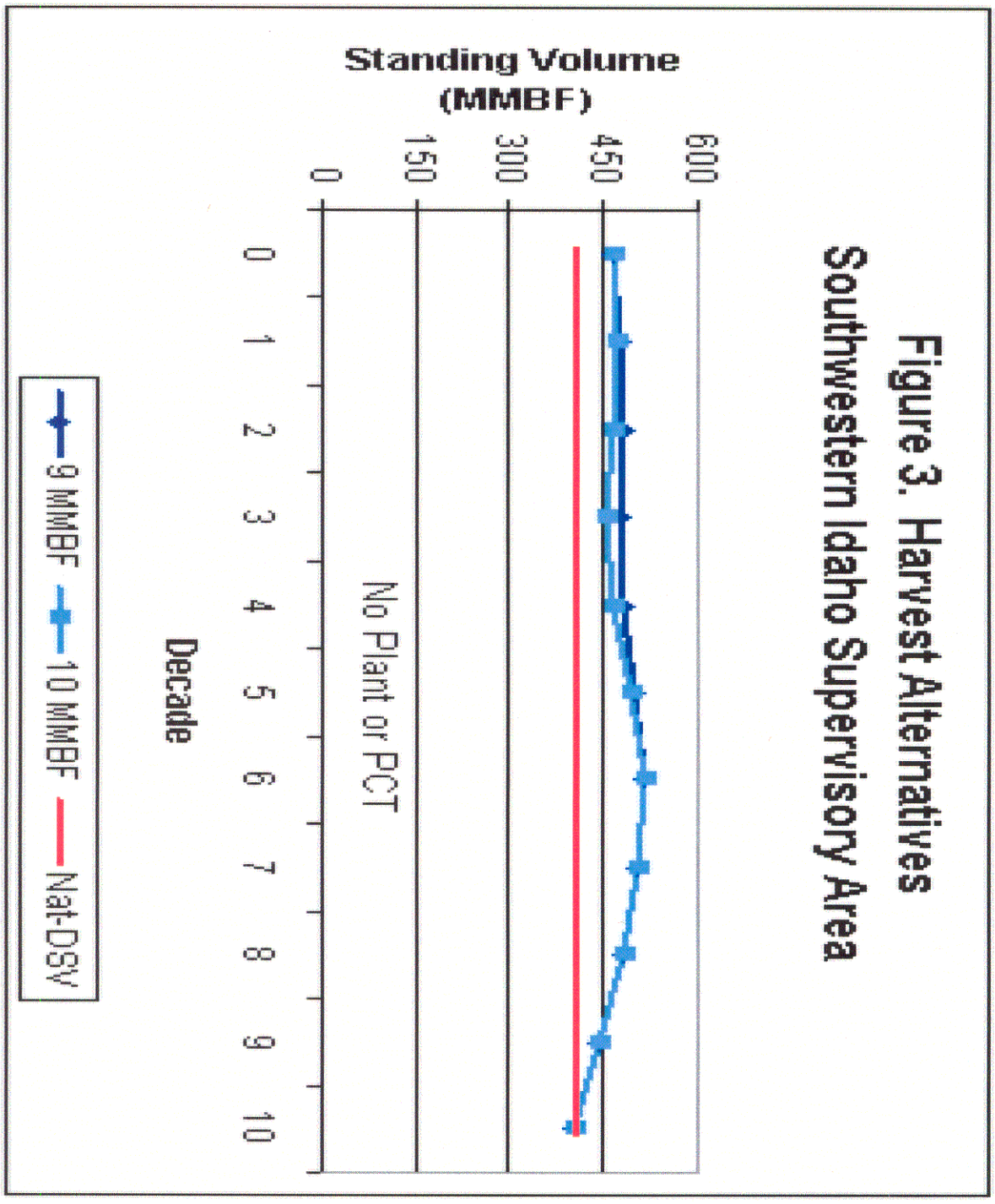
Figure 3. Harvest Alternatives
Southwestern Idaho Supervisory Area
Standing Volume
(MMBF)
600
450
300
150
0
0 1 2 3 4 5 6 7 8 9 10
Decade
No Plant or PCT
9 MMBF
10 MMBF
Nat-DSV

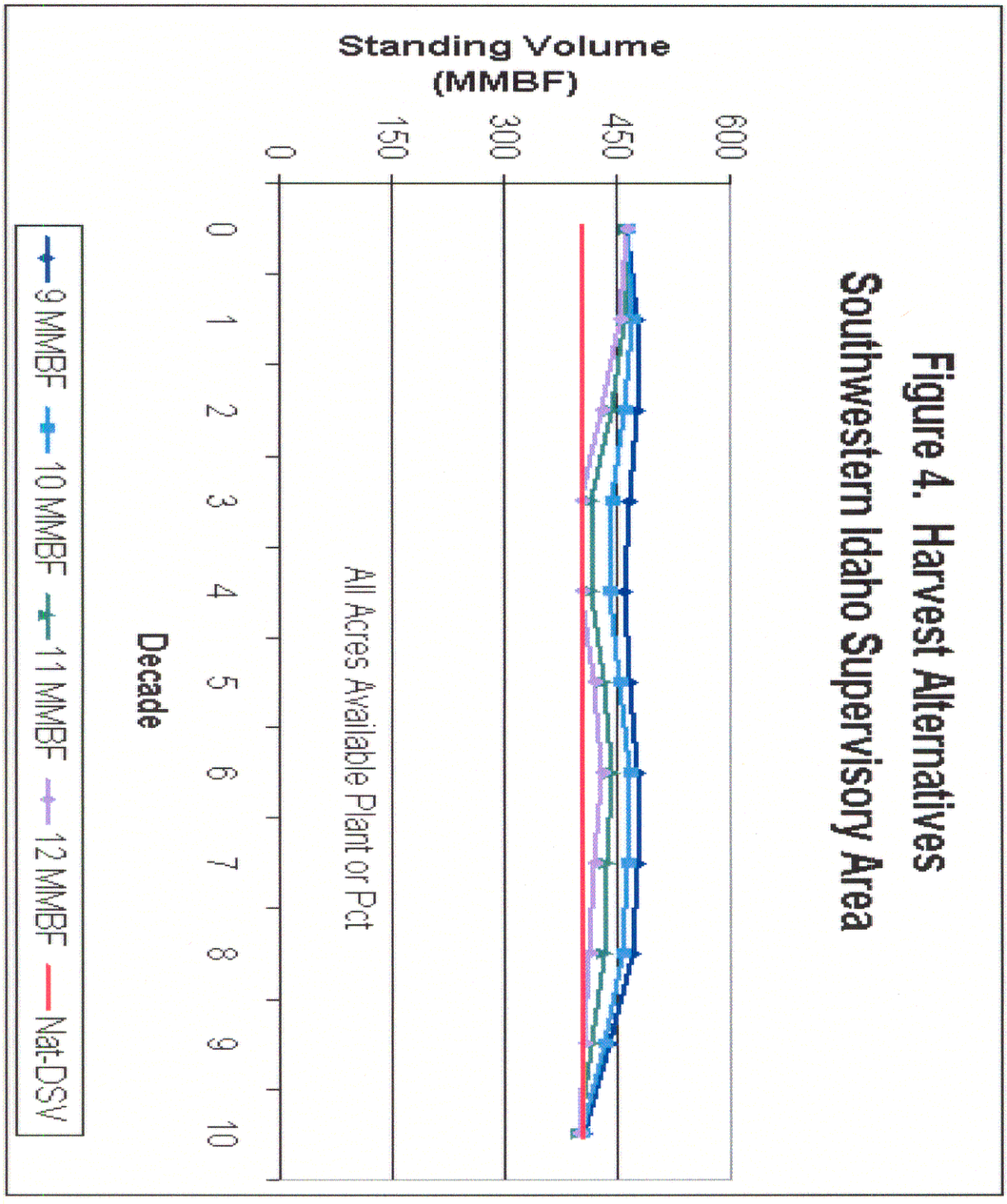
Figure 4. Harvest Alternatives
Southwestern Idaho Supervisory Area
Standing Volume
(MMBF)
600
450
300
150
0
All Acres Available Plant or Pct
0 1 2 3 4 5 6 7 8 9 10
Decade
9 MMBF
10 MMBF
11 MMBF
12 MMBF
Nat-DSV

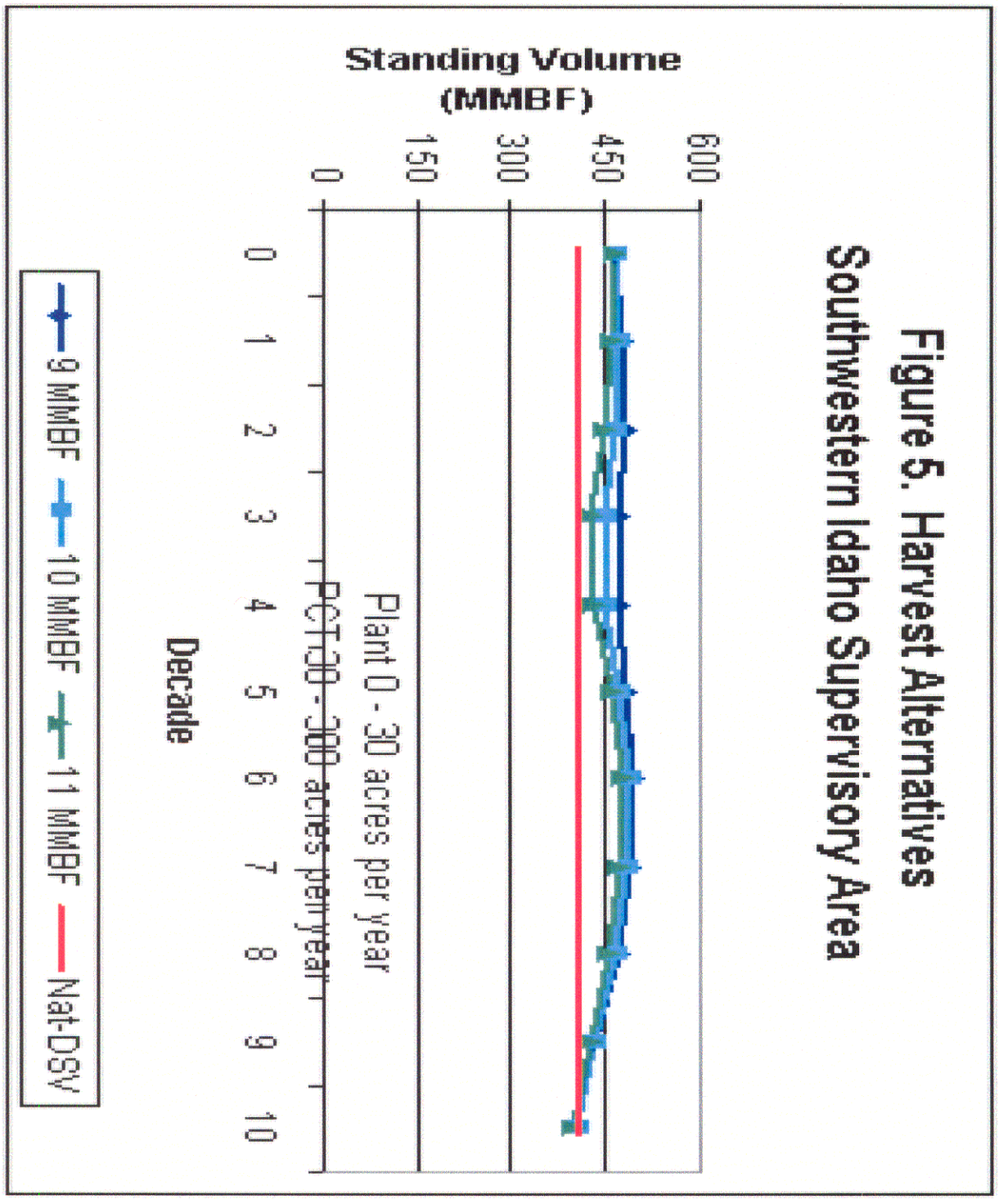
Figure 5. Harvest Alternatives
Southwestern Idaho Supervisory Area
Standing Volume
(MMBF)
600
450
300
150
0
0 1 2 3 4 5 6 7 8 9 10
Decade
Plant 0 - 30 acres per year
PCT 30 - 300 acres per year
9 MMBF
10 MMBF
11 MMBF
Net-DSV

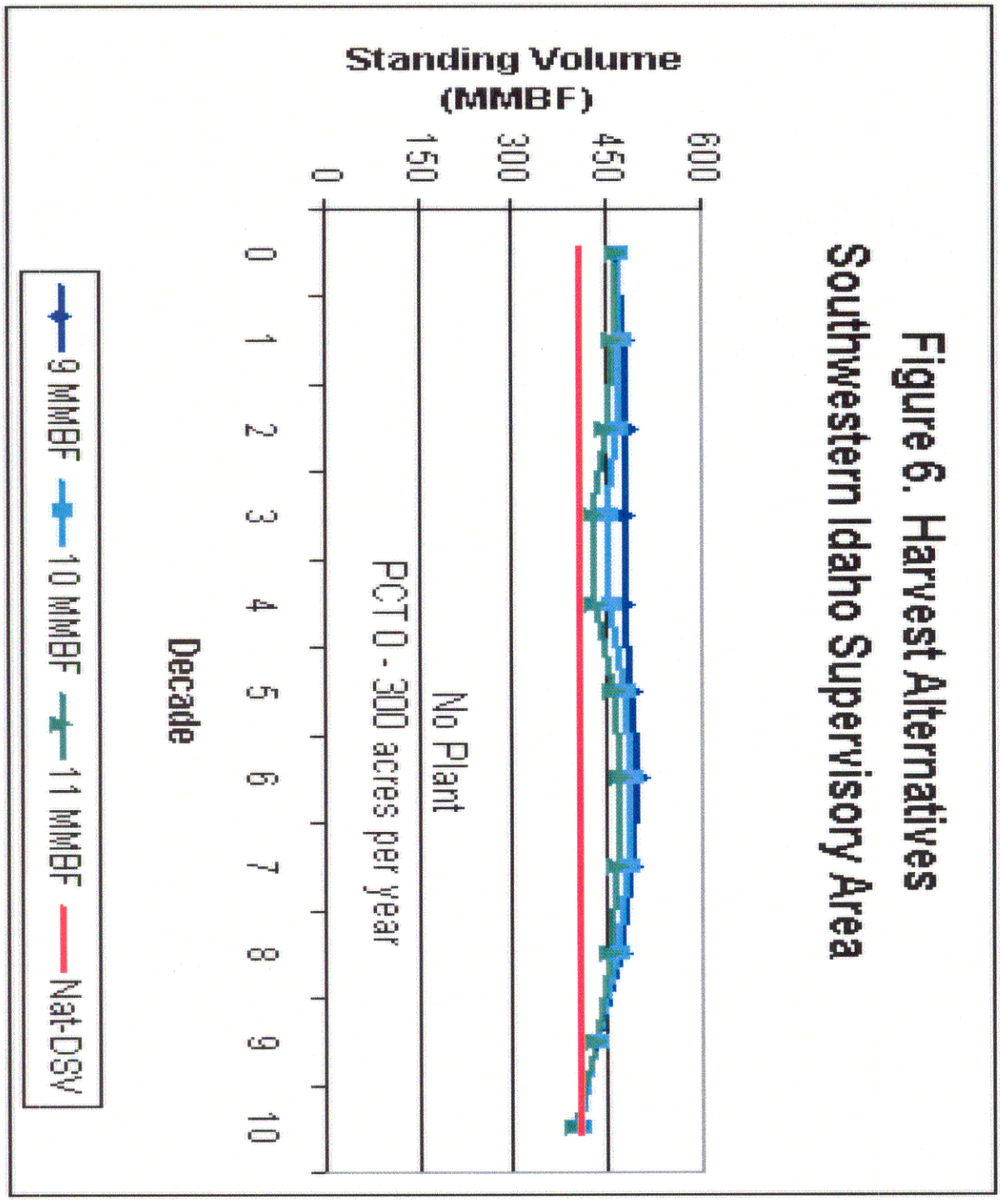
Figure 6. Harvest Alternatives
Southwestern Idaho Supervisory Area
Standing Volume
(MMBF)
600
450
300
150
0
0 1 2 3 4 5 6 7 8 9 10
Decade
No Plant
PCT 0 - 300 acres per year
9 MMBF
10 MMBF
11 MMBF
Nat-DSV

Table 8 shows the PNV of the different harvest levels of the different scenarios. The optimum harvest level has the highest PNV. This scenario involves harvesting most of the timber in the first decade. This option does not provide a sustained even flow of timber to the mills. The sustained even flow annual harvest level alternative with the highest PNV is all acres available for planting or precommercial thinning, with an annual harvest of 12 MMBF. The greater the harvest level the higher the NPV.

Table 8. Present Net Value
Southwestern Idaho Supervisory Area

Harvest Level (MMBF	Plant (Acres)	Pct (Acres)	NPV (Million $)
Optimum	na	na	86.0
12	all avail	all avail	60.1
11	all avail	all avail	56.9
11	<30	<300	56.3
11	0	<300	56.0
10	all avail	all avail	52.2
10	<30	<300	52.1
10	0	<300	52.0
10	0	0	51.8
9	all avail	all avail	47.4
9	<30	<300	47.3
9	0	<300	47.2
9	0	0	47.2